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ABSTRACT

The theory and practice of evaluation is in a state of chaos. This will prevail until educators recognize that a problem exists, understand the circumstances surrounding the problem, and learn how to cope with it. Local authorities are fearful and mistrusting of evaluation programs because of possible future infringements on methods of operation. To alleviate this situation it will be necessary to train educators in the nature and purposes of educational evaluation, a broad term involving a number of complex and interacting components. The effects of the evaluation process on those being evaluated are often overlooked. It is suggested that a good state-wide evaluation system should provide (1) information to aid each student in assessing his own progress, (2) information to aid teachers and administrators assess the effectiveness of educational programs, (3) information for the state educational authority that will permit efficient allocation of funds and professional services, (4) data for state and local research agencies that will aid in improving all aspects of the educational process, (5) incentives for innovation in all educational areas, and (6) an accounting to the state legislature and the public of educational progress. These six objectives are considered in some detail, with the individual student regarded as the prime focus. (DP)

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STATE-WIDE EVALUATION -- WHAT ARE THE PRIORITIES?*

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Introduction

In a fascinating study of the political twists and turns and organizational hang-ups that accompanied the inauguration of the Elementary and Secondary Education Act of 1965, Stephen Bailey and Edith Mosher make the comment that when

ESEA was in its first weeks and months of implementation... the infrastructure of systematic program evaluation was either non-existent or woefully primitive.¹

This is a startling and not altogether comforting observation -- particularly in view of the fact that, ever since the 1930's, we have been kicking around the notion of educational evaluation, and writing any number of books and articles about it, and even trying, here and there, to do something about it in the schools.

Nevertheless, in my view, the Bailey-Mosher statement is substantially correct: the theory and practice of evaluation is still a mess -- especially the practice, though there is, also, even today, a good deal of inconclusive debate about the theory as well. Furthermore, I am afraid evaluation will remain in this condition for some time to come unless more professional educators of all types -- teachers, administrators, guidance workers, et al. can be prevailed upon to do three things:

- (1) recognize the central importance of sound evaluation to the success of the whole business of education,
- (2) put forth some solid and serious effort to understand -- really understand -- the technical and philosophical problems involved in it,
- (3) bring their own special knowledge and expertise to bear upon the definition and solution of these problems.

*Speech prepared for delivery at State-wide Testing Conference, Minneapolis, Minnesota, September 12, 1968.

For I am convinced -- indeed have always been convinced -- that the fruitful practice of educational evaluation will get nowhere at all if it is left solely in the hands of professional evaluators, first, because there are simply not enough of them to do the job, but, more importantly, because evaluation has to be everybody's business, at one time or another, if it is to have any real pay-off in improving the way teachers teach and pupils learn. This is to say that everybody connected with schools and school systems must get into the evaluation act somehow if the same schools and school systems are to become capable of meeting the appalling demands that are being placed upon them now, and will be placed upon them increasingly during the years ahead.

This expansion of roles in the practice of evaluation is not likely to come easy, however. It has been said that, as things now stand, evaluation has no constituency. The very term implies a threat to somebody or other. It suggests invidious comparisons in which the shortcomings of programs and personnel will be exposed to the world. In short, hardly anybody really likes to have himself or his works or his institutions subjected to cold-blooded appraisal and analysis. And most people can usually find all sorts of excellent arguments against any particular evaluation program that might conceivably indicate that what they think and hope they are accomplishing is in fact not being accomplished. This is not to say that all the excellent arguments against such programs are always invalid. Quite the contrary. Much that goes by the name of educational evaluation is indeed full of loose thinking and technical flaws. But one suspects that the motivations of the resisters are sometimes less characterized by a yearning for truth than by fear of exposure.

The ups and downs of the proposal for a National Assessment of Educational Progress are a case in point. The violence of the early reactions to that project

are suggestive of some interesting neuroses that may abide in the educational establishment. Reporting on those neuroses as they came to the surface some three years ago, Leonard Buder in a New York Times story, which was head-lined "Report Card for the Schools?," put it this way:

Among the arguments that have been raised against such an assessment are: (1) The test would put "ruinous pressure" upon pupils; (2) the findings would lead to "invidious comparisons;" (3) teachers would teach to the tests and neglect important educational objectives; (4) unless the sponsors of the tests show boldness and imagination, the assessment instrument could become "a flawed multiple-choice monstrosity" that "will do more harm than good;" and (5) a national assessment program would ultimately force conformity or impose Federal control on the nation's schools.²

Now the extraordinary thing about those five arguments is that they were arguments against just about everything that the National Assessment was not and still is not. There may be some flaws in the National Assessment project -- indeed, I think there are -- but these are not the ones. The whole set-up was such as to make these arguments against it immaterial, irrelevant, and generally out of whack with what was actually being proposed. Thus, it is hard to avoid the inference that the early reactions were almost wholly visceral: assessment is assessment is assessment -- and therefore a menace to the smooth (sic) operation of American education.

If you poke around among the various assessment and evaluation projects going on below the federal level, you find the same kinds of blind resistance. Whenever a state education authority undertakes some form of checking up on the quality of learning being produced by local school districts, you can be practically certain that there will be no little grumbling in the boondocks. I could cite some specific instances, but hesitate to open myself to the charge of making invidious

comparisons. Indeed the resistance to evaluation goes all the way through the hierarchy. I know of at least one city where the principals were up in arms when the city school administration proposed a city-wide evaluation program. Teachers are suspicious when their own principals begin to ask serious questions about how their classes are doing. And of course all the squawks from students about the injustices in marking systems are all part of the same general pattern. In short, evaluation as it is usually perceived by a great many, if not most, people involved in the educational process comes close to being a dirty word.

So what is the way out of this dilemma? If evaluation is necessary to the health of education, and practically nobody wants to be evaluated if he can possibly escape the grim ordeal, what is the magic formula for undoing the knots that bind us?

Well, of course, there isn't any magic formula. And maybe the first step to a resolution of the situation is to recognize that there isn't. The second step, it seems to me, is for those of us with a concern for the improvement of education to mount a major effort to educate educators in the nature and purposes of educational evaluation, especially state-wide evaluation, so that they will come to understand why it is important and why they should be whole-hearted participants in the process. This paper purports to be a beginning in such an effort. In the next part of the paper I shall take a look at the multiple meanings of the term educational evaluation. Following that, I shall consider the growing interest of state and federal authorities in the evaluation process and some of the possibilities as well as the pitfalls associated with this interest. Then I shall enumerate six possible purposes of state-wide evaluation that ought to be a concern to all the

parties at interest, including students. And finally I shall discuss the problem of priorities among these several purposes, in the hope that my discussion of them will lead to a consideration by you and your colleagues of their import.

The Multiple Meanings of "Educational Evaluation"

The multiple meanings of educational evaluation are fairly well set forth in the article on the subject by Elizabeth Hagen and Robert Thorndike in the Third Edition of the Encyclopedia of Educational Research. I say only "fairly well" because that article was written prior to 1960 and there have been some new developments since then that add new dimensions to the process that further complicate the semantics.

The general definition of the term given by Hagen and Thorndike is sufficiently comprehensive to cover just about all aspects of evaluation. It goes like this:

Evaluation in education signifies describing something in terms of selected attributes and judging the degree of acceptability of that which has been described. The "something" that is to be described and judged may be any aspect of the educational scene, but it is typically (a) a total school program, (b) a curricular procedure, or (c) an individual or group of individuals. The process of evaluating involves three distinct aspects: (a) selecting the attributes that are important for judging the worth of the specimen to be evaluated, (b) developing and applying procedures that will describe these attributes truly and accurately, and (c) synthesizing the evidence yielded by these procedures into a final judgment of worth.³

Clearly, this definition lays down in good order the ABC's of evaluation as it was understood in the 1950's or thereabouts, and it is useful to keep these ABC's in mind as education moves into the 1970's. They are still basic to the evaluative process. Even so, Hagen and Thorndike were themselves not unaware of a number of

semantic confusions that had crept into the literature on the subject. They say that

Since different persons who have worked with or written about problems of evaluation have been primarily concerned with different kinds of educational phenomena, on the one hand, and with different aspects of the evaluation process, on the other, the term has had rather different significance in the work of different writers.⁴

The number of possible variants of meaning is indeed extraordinary, and even a cursory glance at the literature suggests that most of them have found their way into print at one time or another. If you analyze the two sets of ABC's described by Hagen and Thorndike and consider all the different combinations they can yield, you come up, according to my figuring, with no fewer than 49 ways in which the term evaluation can be used when talking about education.

What is more, I am convinced that, as of now, the Hagen-Thorndike ABC's do not exhaust the possibilities. Since their article appeared, there have been some new and interesting developments in both the jargon and the substance of evaluation. Attached to the semantic core of the concept, we now have words like "feedback," and we speak of "formative evaluation" and "summative evaluation," and we argue about the difference in meaning between these two types and the purposes they are supposed to serve. By calling such terms jargon, I do not intend to deprecate the ideas that lie behind them or some of the useful refinements in thinking that they represent. I only mean that, being now in fashion, they are often slung around carelessly without regard for the efforts at more refined thinking that brought them into being in the first place. For these reasons, it is hardly surprising that when people engage in discussions of evaluation, they too often talk past one another. To use a really old-fashioned term, one might say

that the "apperceptive masses" that different people have accumulated in respect to evaluation may differ so markedly that the ground for productive communication on the subject is considerably less than solid.

The main difficulty, it seems to me, arises from the tendency to think of evaluation in terms of only one or two of its many possible meanings. For instance, there are those who think that if you have administered a battery of standardized achievement tests to a group of students, and then compared the results to a set of norms, you have ipso facto perpetrated an evaluation program. Achievement testing may in some circumstances be an important component of the evaluative process, but in itself it can hardly be said to constitute the whole process.

Take another example. It is sometimes said that you cannot truly evaluate the worth of an educational program unless you are able to trace its effects in the lives of students after they have graduated. In this cosmology, the sum-total of evaluation becomes follow-up studies: evaluating elementary schools by observing how their graduates do in high school; evaluating high schools by observing how their graduates do in college; and evaluating all levels of education by observing how former students are doing after they have been 5, 10, 25, or 40 years out. The idea has a certain simplistic appeal, and no doubt long-term follow-up studies do have a place in the evaluation armamentarium, but anyone who has given such studies more than a passing second thought knows that they have some inescapable drawbacks. For one thing, the intervening variables are so numerous and so hard to account for that all the cause-consequence relationships one might hope to find are bound to be more than usually ambiguous, and even under the most rigorous conditions they are never wholly unambiguous. For another thing, the

relevance to today's schools of data relating back to the schools of 20 years ago is apt to be pretty dubious. So one is forced to wonder whether the results of such studies serve any purpose beyond the provision of interesting press copy and the satisfaction of idle public curiosity.

Probably the commonest and most widely known example of the part-whole fallacy in the matter of educational evaluation is that which is embodied in the Evaluative Criteria produced by the National Study of Secondary School Standards.⁵ This particular document has generated numerous progeny in the publications of state education departments and regional accrediting associations. I suppose the one most familiar to this group is that issued by the North Central Association: Policies and Criteria for the Approval of Secondary Schools.⁶ Now there is nothing positively wrong with all these evaluative criteria. Indeed, they represent a tremendous and thoughtful effort in spelling out in useful detail a comprehensive set of items that ought to be taken into account when sizing up an educational institution -- its educational offerings, its special services of all kinds, its administrative setup, facilities, personnel, instructional materials, and the like. The weakness, of course, lies in the bland assumption that once you have counted the books in the library, or determined the ratio of guidance personnel to pupils, or examined the copyright dates in the textbooks, or whatever, you have somehow obtained a reading on how well the school or school system is actually serving the growth and development of the children who pass through it. This approach is sometimes called "process evaluation," but it has always been a puzzle to me how the evaluation of any process can be complete until you know a good deal about its effects on the persons being processed, and this is what is missing in all the so-called "evaluative criteria" -- at least in those that I have looked at.

The State and Federal Interest in Educational Evaluation

There are, of course, many other meanings that have attached themselves to the concept of educational evaluation, but this is hardly the time or place to try to catalog all of them. Sometime some doctoral candidate in educational linguistics will no doubt produce an exhaustive study of the subject which will be suitably dull, but will nevertheless be a useful contribution to more effective discourse among educators. I want to turn now to what seem to me some important new dimensions that have been introduced into the evaluative process in the last few years as a consequence of state and federal interest in the subject.

As you well know, a great many states have been conducting state-wide testing programs of one kind or another for a good many years, and Minnesota has clearly been one of the early leaders in this development. An ETS survey of the matter, carried out two years ago, shows that at that time there were 74 such testing programs in 42 states, with 18 of the states offering two or more programs.⁷ The majority of the reporting states -- 22 of them to be exact -- were primarily concerned with providing the schools with tests for use in guidance, 17 offered tests as a basis for the evaluation of instruction, and 13 for assessing the progress of individual students. A scattering of the states had tests for such other purposes as college admissions, the awarding of scholarships, and the like. With very few exceptions, none of these programs has been mandatory. That is, the school districts could take them or leave them as they saw fit and use the results to suit their own purposes. The oldest and probably the most prominent exception is, of course, the Regents Examination Program in New York, which got underway as far back as 1865.⁸

It is, however, the general permissiveness in the state programs which I think is in process of changing, and this change, for better or worse, is bringing some new concepts into the total evaluation process. My own first direct experience with this shift in direction occurred in 1964 when ETS became involved in the development of a plan for evaluating the quality of educational programs in the Commonwealth of Pennsylvania.⁹ The need for such a plan grew out of a mandate from the General Assembly which was embodied in an act passed in 1963 containing a section entitled "Educational Performance Standards." Some of the specific wording of that section is of considerable historic interest, so let me quote from it:

The State Board of Education..shall develop or cause to be developed an evaluation procedure designed to measure objectively the adequacy and efficiency of the educational programs offered by the public schools of the Commonwealth. The evaluation procedure shall include tests measuring the achievement and performance of students pursuing all of the various subjects and courses comprising the curricula. The evaluation procedure shall be so constructed and developed as to provide each school district with relevant comparative data to enable directors and administrators to more readily appraise the educational performance and to effectuate without delay the strengthening of the district's educational program...¹⁰ (Emphasis added)

Now it seems to me that the most important sentence in that bit of prose is the last one. It insists on two things in the state-wide evaluation program: (1) the development of comparative data across school districts and (2) the use of such data to strengthen local programs. In other words, the legislature was saying that in its view the prime purpose of an evaluation program is to put the bee on weak local school districts to shape up.

Since the report of that planning study came out, a number of other states have begun to make noises to the effect that they might be interested in a similar

evaluation program with similar teeth in it, and as a consequence our full report (728 pages) on how one might implement such a program is now out of print.

The next historic date in the history of mandated evaluation programs is April 11, 1965 -- the date of the Elementary and Secondary Education Act of 1965. No doubt you are all well aware of that part of the Act which deals with the evaluation of Title I programs. It says

that effective procedures, including provision for appropriate objective measurements of educational achievement, will be adopted for evaluating at least annually the effectiveness of the programs in meeting the special educational needs of educationally deprived children.¹¹

When one looks back on the situation from the present point in time, it is clear that this particular clause demanded from states and local school systems a kind of rigorous evaluation that, for various reasons, they were not in position to deliver. But what is more interesting, the Congress has not given up the effort to secure the kind of evaluative information it wants and intends to get. Indeed, the Amended ESEA of 1967 enlarges the scope of the evaluation clause in two ways. First, it brings under it not only Title I programs, but also the programs funded under Titles II, III, V, VI, VII, and VIII. Second -- and this it seems to me is of particular importance -- it links evaluation to program planning. In fact, Section 402 of the Amended Act is headed with the words "Program Planning and Evaluation" and authorizes the appropriation of funds for this purpose.¹²

It is this linkage with program planning that, in my judgement, represents a new dimension in educational evaluation, not only at the federal level, but more and more at state and local levels as well, for it has brought onto the evaluation scene a group of very bright economists and systems analysts who are concerned to

make educational evaluation an integral part of the techniques of cost-benefit analysis, planning-programming-budgeting systems, and related enterprises. To be sure, they haven't yet figured out how to get the right data to make their benefit-cost ratios believable or entirely appropriate for assessing the productivity of educational programs and systems. Moreover, they, too, are tending to become trapped in the part-whole fallacy by assuming that cost-benefit analysis constitutes all there is to the evaluative process. Nevertheless, the logic they bring to the process is pretty persuasive, and it behooves educators of all sorts to try to understand it and incorporate it in their own thinking if they do not want to be run over by it. An easy way to begin this defensive exercise is to read a short and sensible paper entitled "Cost Benefit Analysis in Education" by Mood and Powers which nicely sets forth the philosophy and hopes of this approach to evaluation, but shows at the same time the very large problems that remain to be overcome before it can be safely put into practice in school systems.¹³

Six Purposes of State-wide Evaluation

Over the past ten or twenty years there has been a tremendous and growing concern with the problem of defining the goals of education in all their variety, and it has been the evaluators themselves who have probably done the most to sensitize educators to this problem. What is surprising to me, however, is that the same people have given only a minimum of concentrated and detailed attention to the goals, purposes, aims, objectives, or whatever to the evaluation process itself -- especially when it is thought of as a state-wide enterprise. So it seems to me that if we are not to find ourselves going down the wrong road in the next few years or so, we need to give a great deal of thoughtful consideration to this

matter. For I am convinced that state-wide evaluation, with real teeth in it, is about to come upon us, whether we like it or not. It had better be the right kind of evaluation if we are going to have the right kind of education.

To this end, I want to suggest for discussion six principal purposes that a state-wide evaluation system might serve. They are as follows:

1. The system should provide basic information for helping every student in the state assess his own progress through the educational systems of the state, so that he can become increasingly mature in understanding himself, his educational needs and his future possibilities.
2. It should provide the teachers and administrators in every school system with basic information for assessing the effectiveness of all the principal phases of their educational programs in sufficient detail to indicate the specific steps required for continually strengthening those programs.
3. It should provide the state education authority with basic information needed for allocating state funds and professional services in a manner best calculated to equalize educational opportunities for all children in all school systems.
4. It should provide research agencies at both the state and local levels with data for generating and testing hypotheses concerning the improvement of any and all aspects of the educational process.
5. It should provide every school system with strong incentives to experiment, under controlled conditions, with new and promising educational programs, materials, devices, and organizational arrangements.
6. It should periodically provide the state legislature and the general public with readily interpretable information concerning the progress of the state system of education as a whole and of each local system.

The order of priority of these six purposes, I believe, should be approximately the same as the order in which I have listed them. However, the priorities are a

matter for serious and extended discussion among the state and local authorities, for their ordering will have important implications for the way any state system of evaluation will be developed. My own reasoning for this order of priority is as follows:

Purpose 1. The prime focus of the evaluation system I believe should be on the individual student. It should give him the means for developing some order in his experience inside and outside of school. It should furnish him with the information he needs to work out his career goals and chart his way toward them through the complex network of autonomous school systems that make up the state system.

A central fact of the educational enterprise that is ordinarily overlooked is the high mobility of the student population. Pupils -- all pupils -- are continually shifting from one teacher to another, from one grade to another, from one school to another, and from one school system to another.* They are thus constantly having to adapt to changing educational environments, each with its own goals, values, standards, and ways of doing things. As a result of these discontinuities, most students must depend very largely on themselves and their guidance counselors for keeping their successive learning experiences in order.

Since this is the case, one of the student's primary educational needs is for some intelligible indication of how he is doing and what he needs to work on. He needs a means for evaluating his own learning periodically -- that is, a common and dependable source of information for finding his way through the labyrinth of schools and other educational agencies that purport to operate on his behalf. Thus, the first concern of a state-wide evaluation system should be to supply this common

*Each year one-fifth of all American families change their place of residence. The rate of mobility is well above this average among young families, and among families in the slums.

source of information for every student in the state. The instruments and procedures for meeting this educational need of individual students is far from clear at the present time. But that the need is real and urgent seems unquestionable. In my opinion the responsibility for meeting the need must rest with the state education authority if it is to be met at all.

Purpose 2. The second purpose of a state-wide evaluation system -- providing teachers and administrators in each school system with information for assessing their own operations -- is close to the first purpose in importance. There are at least two fallacies that make local education authorities resistant to having the state authority assess the performance of local school districts. One is the notion that a state system of tests, questionnaires, and other measures, necessarily infringes on the freedom of local authorities to experiment with new curricula and methods of operation. The other is the notion that a local educational system can assess its own performance without any reference to the performance of other systems. Both notions are wrong. A statewide system of evaluation services, properly designed, does not have to interfere with the autonomy of local systems. At the same time, it seems to me clearly impossible for a local school system to secure a satisfactory reading on the effectiveness of its own educational programs unless it has access to data that will enable it to compare its own effectiveness with that of other systems operating in similar circumstances. The provision and organization of data that will make such comparisons truly valid is no small task, but it is one that had better be tackled soon if we are to avoid the simplistic comparisons that now bedevil us.

Many school people are likely to be fearful that a state-wide program resulting in comparative performance data for each school or school system will concentrate

only on easily testable qualities and will thus leave out of account many factors in pupil growth (sense of personal worth, social adaptability, vocational effectiveness, etc.) which the schools rightly consider, or say they consider, important. This fear is not groundless, since acceptable measures of personal-social development are hard to come by. It is for this reason that in working out the content of an evaluation system the development of ways to measure these difficult-to-measure factors should be prominent in the planning effort at the very outset.

Purpose 3. The first two purposes stated above are paramount if the local school systems in a state are to maintain educational programs that are maximally useful to every student in the state in light of present knowledge of what sorts of curricula, instructional techniques, institutional arrangements, etc. are educationally most productive for students of various kinds and conditions. The third purpose -- providing the state authority with solid information for deciding how to allocate resources -- is a necessary complement to the first two, inasmuch as it seeks to provide a rational distribution of the funds and services tailored to the specific needs of each local school system. I am talking of categorical aid, but not in the usual sense of the term. As I think of the matter, the categories in which state aid is administered should vary from one school system to another depending on the demonstrably special problems each system has in fostering the development of its pupils. The emphasis should be on deploying state funds so as to maximize the achievement of each child in the state rather than merely to assure that each shall attain some minimum level of competence.

Purposes 4 and 5. These have to do with the stimulation of research and experimentation aimed at up-grading the quality of education. Unless a state-wide

evaluation system encompasses these two purposes, there is the danger that the entire educational enterprise in the state will be stuck on dead-center at a time when social and technological change is becoming increasingly rapid. An important function of the data issuing from the evaluation system is to generate promising hypotheses to be tested through educational research. Thus, I see the evaluation system as an important, indeed an indispensable, stimulator of promising new educational ideas to be tried out by the schools. I see it also as the indispensable basis for determining the extent to which the hoped-for effects of innovative practices are being realized.

Purpose 6. Finally, it is clear that maintenance of sound educational programs through the self-assessment processes suggested in Purposes #1 and #2, the decision process suggested in Purpose #3, and the research and experiment process suggested in Purposes #4 and #5 requires the support of the citizens whose tax dollars must underwrite the cost of education. Not only do they have a right to a periodic accounting of the educational benefits their dollars are buying; their support for more effective educational programs is likely to be somewhat less than enthusiastic unless such an accounting is regularly forthcoming, is valid beyond question, and is in terms that can be readily understood. Hence, Purpose #6.

It may be said that the ideal evaluation system embodied in these six purposes is so far from realization that it has nothing to do now with the urgent problems of the ghettos, the rural slums, and all the school districts in between. Granted. But even so, somebody -- a good many people in fact -- had better be thinking today about the problems of tomorrow, if there is to be any tomorrow. If, ten years ago,

we had been worrying about and working at the evaluation system I've been talking about, and sorting out our priorities in regard to it, then, I honestly believe, that today we would have been less dependent than we now are on sheer rhetoric, blind hunch, and purely political power plays as the means for trying to solve the problems that threaten the viability of the entire educational system.

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